Question 1
MCstruc1
How many hydrogen atoms does the molecule carvone have (the line-angle structure is drawn below)? Two forms of stereoisomer of carvone occur naturally, both have distinctive and pleasant smells!

A 14 hydrogens
B 16 hydrogens
C 18 hydrogens
D 20 hydrogens

14 hydrogens
How many hydrogen atoms does tryptophan contain?

A = 13
B = 10
C = 11
D = 12
Question 3
MC10v
Which is a correct condensed formula for citronellal, which provides the characteristic smell of lemons!

A   \((\text{CH}_3)_2\text{CCHCH}_2\text{C(CH}_3)_2\text{CH}_2\text{CHO}\)
B   \((\text{CH}_3)_2\text{CCHCH}_2\text{CH}_2\text{CH(CH}_3)_2\text{CH}_2\text{OH}\)
C   \((\text{CH}_3)_2\text{CCHCH}_2\text{CH}_2\text{CH(CH}_3)_2\text{CH}_2\text{CHO}\)
D   \((\text{CH}_3)_2\text{CHCH}_2\text{CH}_2\text{CH(CH}_3)_2\text{CH}_2\text{CHO}\)

incorrect A
incorrect B
incorrect C
incorrect D
Which is a correct condensed formula for linalool, which contributes to the pleasant scent in many flowers.

A   \((\text{CH}_3)\text{CH}_3\text{CHCH}_2\text{CH}_2\text{C(OH)}\text{CHCH}_2\)
B   \((\text{CH}_3) \text{CCHCH}_2\text{CH}_2\text{CCH}_3\text{(OH)}\text{CCH}_2\)
C   \((\text{CH}_3)\text{CH}_3\text{CCHCH}_2\text{CH}_2\text{C(CH}_3\text{)(OH)}\text{CH}_2\text{CH}_2\)
D   \((\text{CH}_3) \text{CCHCH}_2\text{CH}_2\text{C(CH}_3\text{)(OH)}\text{CHCH}_2\)
Question 5

How many DIFFERENT molecules are represented by the following five structures?

A  1 molecule (they are all the same)
B  2 different molecules
C  3 different molecules
D  4 different molecules
**Question 6**

Below are several molecular structures, some are of different molecules and some are of the same molecule drawn different ways. How many of these are drawings of the SAME molecule? For example, if you think that A, B and D are the same molecule but C, E and F are not the same as A, B and D, then your answer would be "Three are the same", etc.

A \((\text{CH}_3)_2\text{CCHCH(CH}_3\text{)}\text{CH}_3\text{CH}_3\) \(\text{C}_7\text{H}_{16}\)

B \((\text{CH}_3)_3\text{CCHCH(CH}_3\text{)}(\text{CH}_2)_3\text{CH}_3\) \(\text{C}_7\text{H}_{16}\)

C \(\text{CH}_3\text{CHCHCH}_3\text{CH}_2\text{CH}_3\) \(\text{C}_7\text{H}_{16}\)

D \(\text{CH}_3\text{CHCH}_3\text{CH}_2\text{CH}_3\) \(\text{C}_7\text{H}_{16}\)

E \(\text{CH}_3\text{CHCH}_3\text{CH}_2\text{CH}_2\text{CH}_3\) \(\text{C}_7\text{H}_{16}\)

F \(\text{CH}_3\text{CHCHCH}_3\text{CH}_3\) \(\text{C}_7\text{H}_{16}\)

A TWO are the same

B THREE are the same

C FOUR are the same

D FIVE are the same
Question 7

MCstruc10
Which condensed structure corresponds to the provided line-angle (skeletal) structure?

A  \( \text{CH}_3\text{CHCCH}_3(\text{CH}_2)_3\text{COCHCH}_3\text{CH}_2\text{CH}_3 \)
B  \( \text{CH}_3\text{CHCH(TH}_3)(\text{CH}_2)_3\text{COC(TH}_3)\text{CH}_2\text{CH}_3 \)
C  \( \text{CH}_3\text{CHCHCH}_3(\text{CH}_2)_3\text{COCH(CH}_3)\text{CH}_2\text{CH}_3 \)
D  \( \text{CH}_3\text{CHC(CH}_3)(\text{CH}_2)_3\text{COCH(CH}_3)\text{CH}_2\text{CH}_3 \)

Question 8

MCstruc8
Identify the structure that does NOT have the molecular formula \( \text{C}_6\text{H}_{10} \)

A  \( \text{C}_6\text{H}_{12} \)

\[ \text{C}_6\text{H}_{12} = \text{C}_6\text{H}_{12} \]

\( \text{B} \)  \[ \text{CH}_3\text{CHCHC(TH}_3)\text{CH}_2 \]
\( \text{C} \)  \[ \text{CH}_3\text{CHCHCH}_3(\text{CH}_2)_3\text{COCH(CH}_3)\text{CH}_2\text{CH}_3 \]
\( \text{D} \)  \[ \text{CH}_3\text{CHC(CH}_3)(\text{CH}_2)_3\text{COCH(CH}_3)\text{CH}_2\text{CH}_3 \]